Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P633049

Luminaire Tested: GWS-SA2D-830-U-T2R-W-HSS

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P633049
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-14)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA2D-830-U-T2R-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(32) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7480.4 lumens
Efficiency:	N/A
Efficacy:	91.1 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B1 - U0 - G1

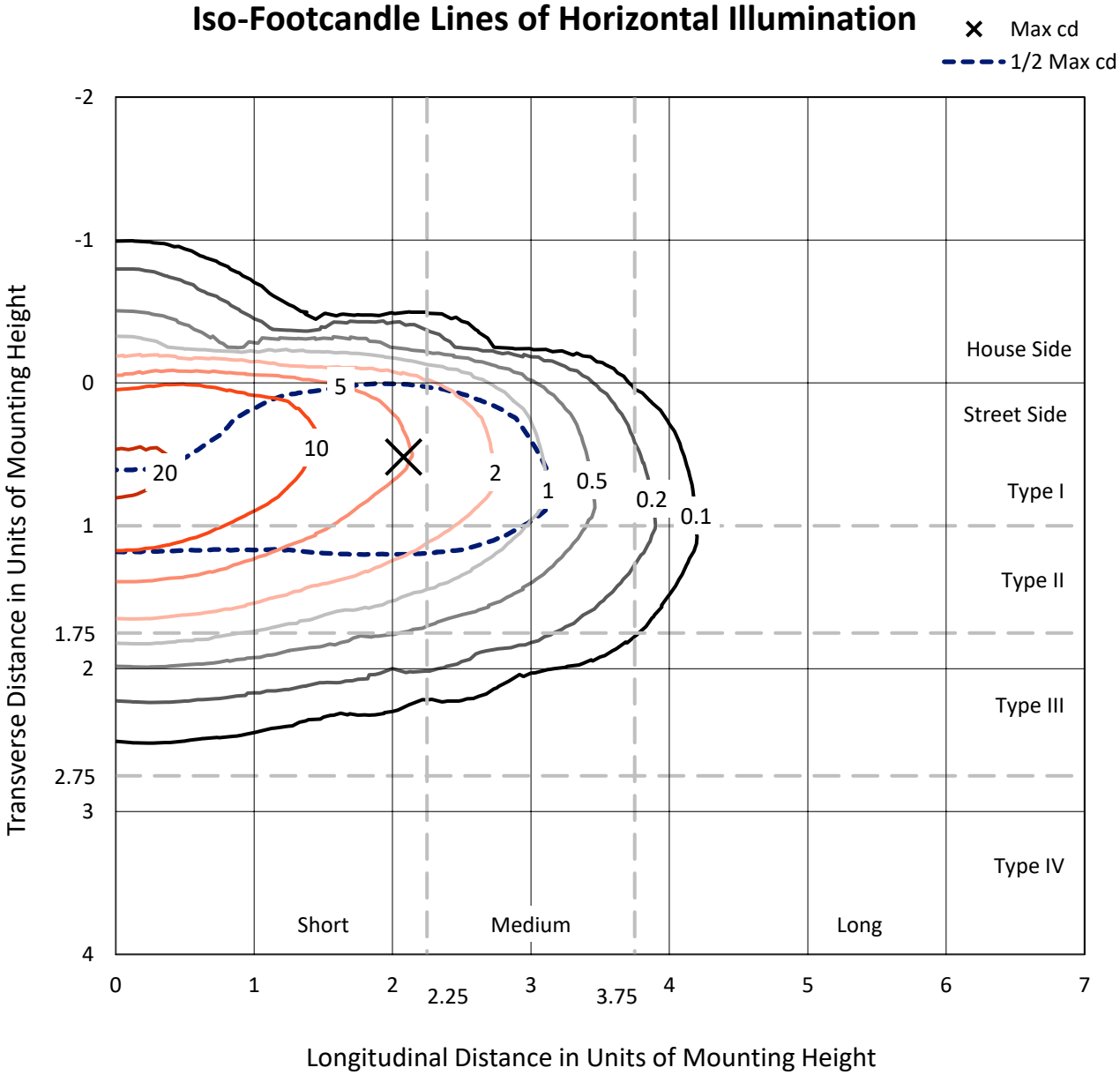
Input Watts (W):	82.1
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P633049
CATALOG NUMBER: GWS-SA2D-830-U-T2R-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



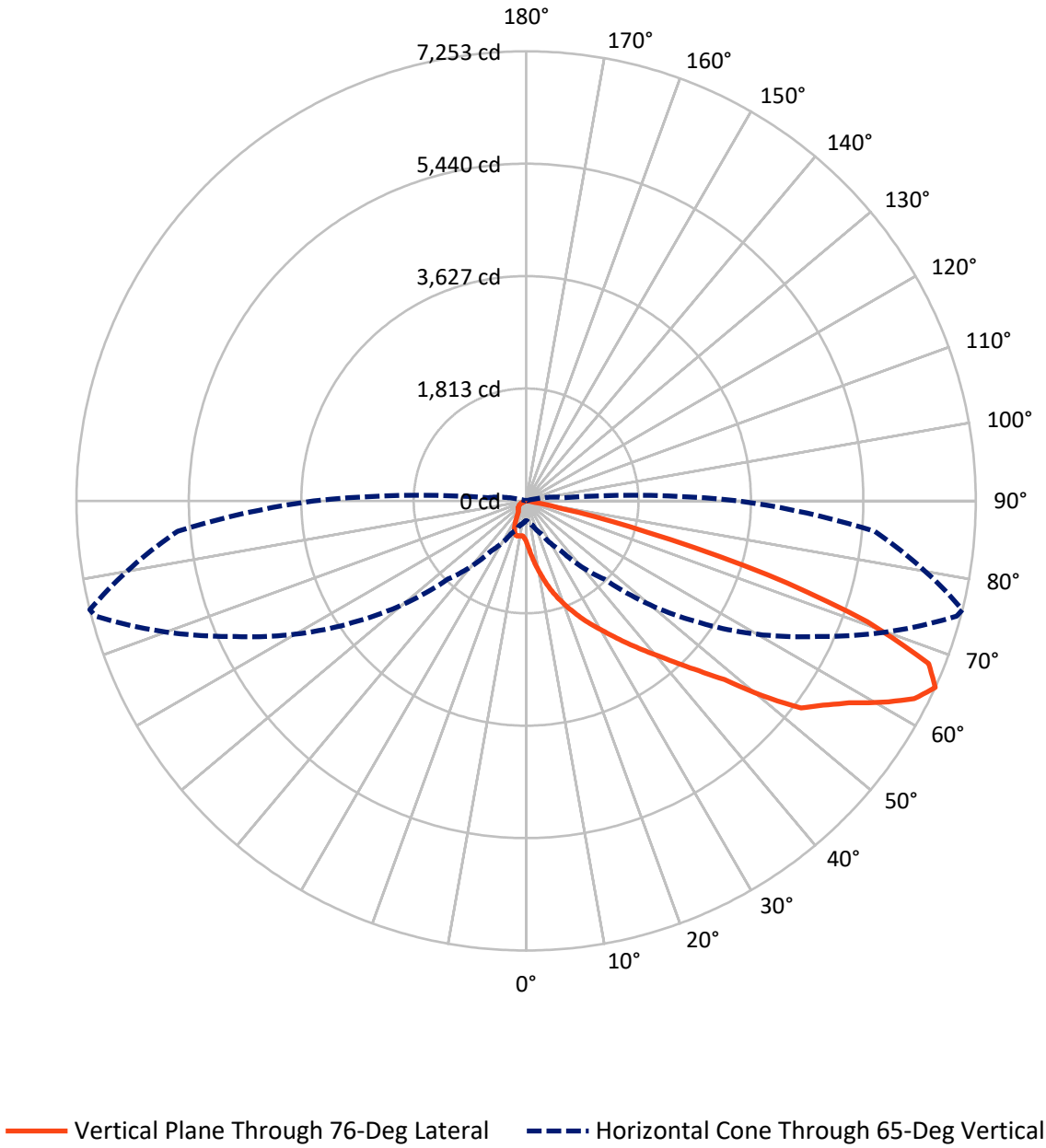
Based on 10 foot mounting height. Maximum calculated value = 22.4 fc
Type II - Short - N/A

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P633049
CATALOG NUMBER: GWS-SA2D-830-U-T2R-W-HSS

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

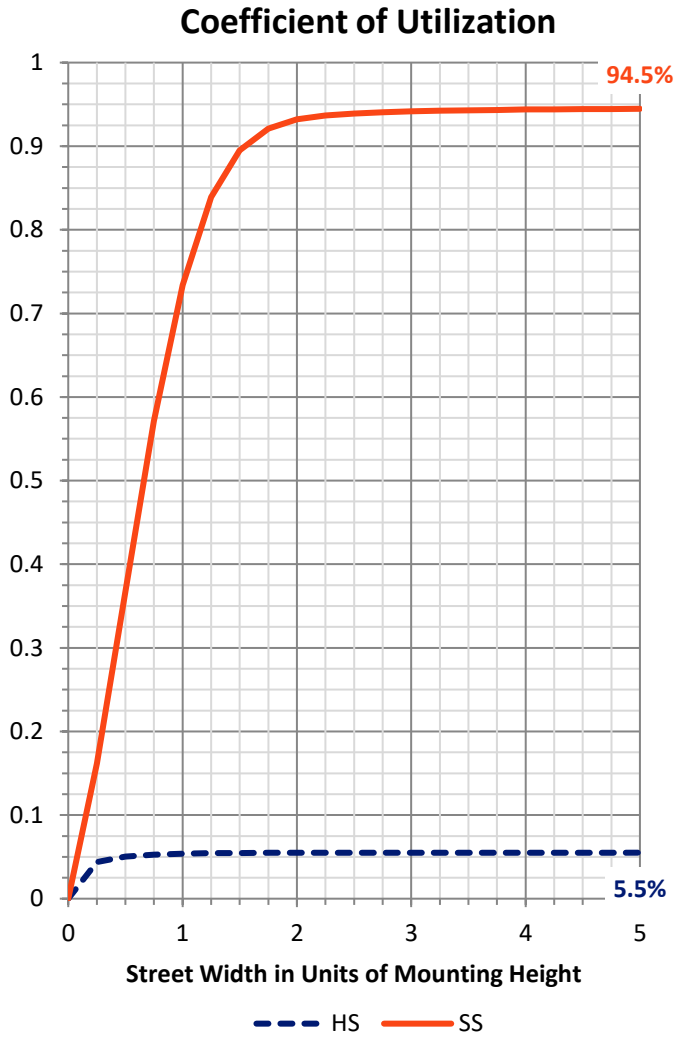
REPORT NUMBER: P633049
CATALOG NUMBER: GWS-SA2D-830-U-T2R-W-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	413.6	0.0	413.6
	% Fixture	5.5	0.0	5.5
Street Side	Lumens	7066.8	0.0	7066.8
	% Fixture	94.5	0.0	94.5
Total	Lumens	7480.4	0.0	7480.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.6	1.1
10°-20°	305.7	4.1
20°-30°	623.7	8.3
30°-40°	1109.3	14.8
40°-50°	1639.8	21.9
50°-60°	1877.5	25.1
60°-70°	1432.4	19.1
70°-80°	401.3	5.4
80°-90°	10.1	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	7480.4	100.0
0°-180°	7480.4	100.0



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

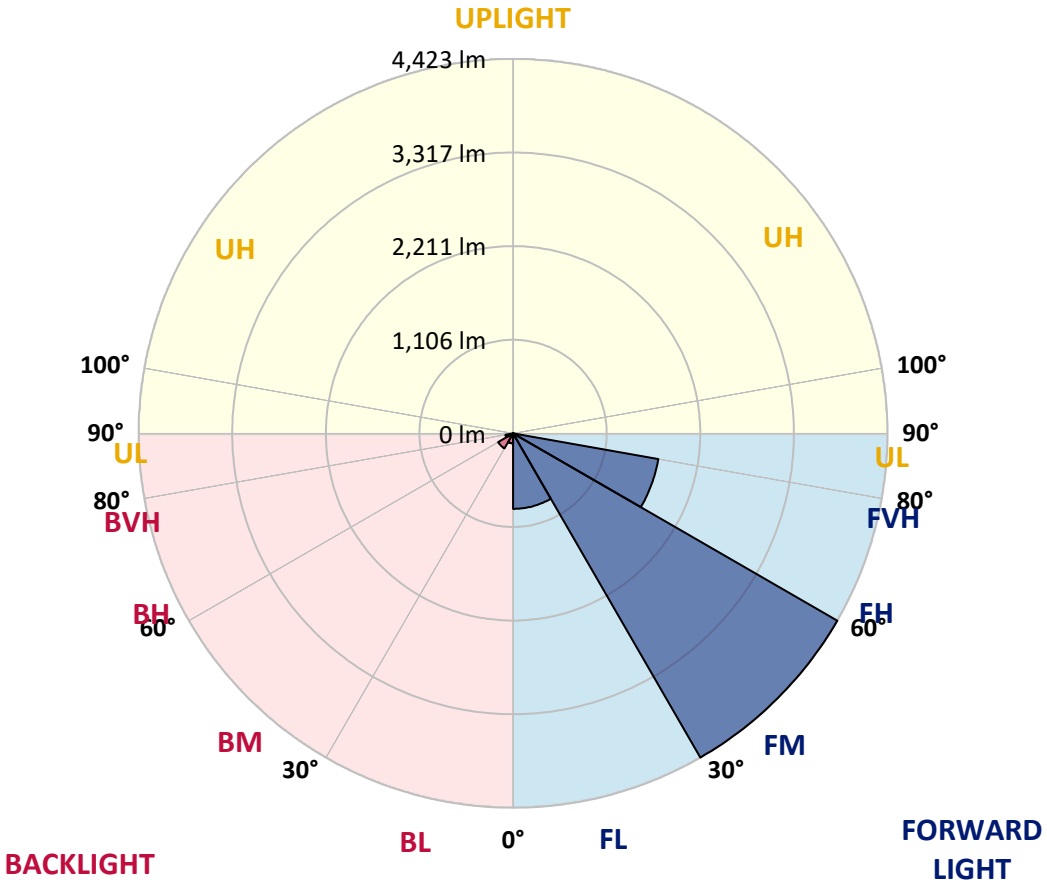
Scaled Data Report

REPORT NUMBER: P633049
CATALOG NUMBER: GWS-SA2D-830-U-T2R-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	892.0	11.9			
FM	(30°-60°)	4422.5	59.1			
FH	(60°-80°)	1742.8	23.3			G1/1800
FVH	(80°-90°)	9.5	0.1			G0/10
BL	(0°-30°)	118.0	1.6	B1/500		
BM	(30°-60°)	204.1	2.7	B0/220		
BH	(60°-80°)	90.9	1.2	B0/110		G0/110
BVH	(80°-90°)	0.6	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
Type II Short



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P633049
CATALOG NUMBER: GWS-SA2D-830-U-T2R-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	662.3	662.3	662.3	662.3	662.3	662.3	662.3	662.3	662.3	*662.3*	662.3
2.5°	1020.7	1036.0	1024.0	1004.1	965.5	928.3	880.4	814.6	762.0	*755.4*	706.2
5°	1378.4	1377.1	1351.2	1325.2	1284.7	1220.8	1124.4	1002.1	884.4	*874.4*	764.0
7.5°	1591.2	1593.2	1578.6	1558.6	1518.7	1452.9	1352.5	1204.9	1032.7	*1012.7*	843.2
10°	1770.1	1769.4	1758.8	1749.5	1713.6	1669.7	1562.0	1399.7	1192.3	*1161.0*	931.6
12.5°	1904.4	1909.1	1914.4	1923.7	1908.4	1865.2	1763.4	1586.6	1353.8	*1319.3*	1032.7
15°	2010.8	2012.1	2032.1	2068.0	2080.6	2058.0	1965.6	1767.4	1513.4	*1483.5*	1149.0
17.5°	2042.7	2045.4	2079.3	2145.1	2211.6	2224.3	2154.4	1949.6	1670.3	*1638.4*	1262.1
20°	2109.9	2115.9	2141.1	2199.0	2282.8	2350.6	2323.3	2133.8	1827.3	*1785.4*	1377.8
22.5°	2321.3	2324.7	2316.0	2323.3	2366.6	2445.0	2461.6	2312.0	1988.2	*1943.6*	1502.8
25°	2685.1	2686.4	2625.9	2568.7	2536.1	2550.7	2587.3	2476.3	2147.8	*2103.9*	1619.1
27.5°	3062.8	3067.4	2994.9	2897.8	2781.5	2715.0	2704.3	2626.5	2308.7	*2260.2*	1734.2
30°	3418.5	3418.5	3342.0	3223.7	3068.1	2938.4	2861.9	2778.2	2480.9	*2427.7*	1851.9
32.5°	3738.3	3735.7	3637.9	3509.6	3356.0	3213.7	3052.8	2936.4	2672.4	*2613.2*	1987.5
35°	4002.3	3995.7	3884.6	3761.6	3597.4	3491.6	3312.1	3106.6	2879.9	*2820.7*	2127.2
37.5°	4201.8	4194.5	4092.8	3962.4	3810.2	3741.7	3591.4	3310.8	3098.7	*3044.8*	2282.1
40°	4310.2	4295.6	4225.1	4128.0	4000.3	3940.5	3878.0	3564.1	3356.0	*3288.8*	2465.0
42.5°	4342.1	4324.8	4278.3	4233.1	4155.9	4108.7	4175.9	3850.0	3638.6	*3580.7*	2673.8
45°	4247.7	4237.7	4233.7	4266.3	4280.3	4293.6	4459.1	4166.6	3950.5	*3906.6*	2936.4
47.5°	4020.3	4017.6	4052.9	4188.5	4336.1	4476.4	4767.0	4556.9	4354.7	*4307.5*	3303.5
50°	3600.0	3627.3	3725.7	3963.8	4259.0	4580.2	5054.9	5098.2	5009.1	*4939.9*	3782.2
52.5°	2943.1	2995.6	3216.4	3578.1	4002.3	4550.9	5187.9	5531.7	5622.8	*5551.0*	4125.3
55°	2309.4	2358.6	2555.4	3014.2	3580.1	4328.1	5193.9	5681.3	5880.1	*5813.6*	4357.4
57.5°	1720.2	1765.4	1944.3	2383.2	3005.6	3889.9	5051.6	5764.4	6185.3	*6142.8*	4723.8
60°	1124.4	1169.0	1330.6	1714.2	2331.3	3251.6	4701.2	5747.1	6600.9	*6596.9*	5174.0
62.5°	623.7	659.0	776.0	1075.2	1627.1	2518.2	4150.6	5573.6	7003.2	*7028.5*	5545.0
65°	*319.2*	*341.8*	*412.9*	*591.1*	*984.8*	*1785.4*	*3426.5*	*5176.0*	*7189.4*	*7253.3*	*5642.7*
67.5°	208.8	216.1	233.4	307.2	527.3	1123.1	2578.7	4538.3	6927.4	*7001.9*	5314.9
70°	169.6	175.5	185.5	204.8	272.0	596.5	1693.6	3624.6	5788.4	*5838.9*	4232.4
72.5°	124.3	132.3	151.6	164.2	196.2	327.2	881.1	2379.2	3975.1	*4064.2*	2659.8
75°	91.8	96.4	112.4	129.7	160.3	206.8	337.1	1250.8	2052.7	*2000.8*	1117.1
77.5°	55.2	58.5	71.8	83.1	114.4	129.0	117.7	462.1	624.4	*587.1*	270.0
80°	27.3	30.6	47.2	62.5	73.1	51.9	49.2	129.0	139.0	*139.0*	67.8
82.5°	9.3	12.0	25.3	41.2	35.9	19.9	23.3	33.2	37.2	*39.2*	19.9
85°	0.0	0.0	6.0	12.0	5.3	2.7	6.0	7.3	9.3	*10.0*	6.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.0	*2.7*	2.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P633049
CATALOG NUMBER: GWS-SA2D-830-U-T2R-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	662.3	662.3	662.3	662.3	662.3	662.3	662.3	662.3	662.3	662.3	662.3
2.5°	679.6	648.3	601.1	558.6	526.0	495.4	472.1	453.5	450.2	439.5	440.9
5°	710.2	653.6	566.5	499.4	452.2	420.2	393.6	373.7	365.1	356.4	349.8
7.5°	757.4	675.6	553.2	471.4	416.3	367.1	325.8	292.6	276.6	266.6	260.0
10°	815.2	706.2	553.9	454.8	373.0	297.9	241.4	204.8	187.5	182.2	181.5
12.5°	884.4	744.7	559.2	427.6	310.5	221.4	178.9	162.2	156.9	152.3	152.3
15°	957.5	788.0	559.2	377.7	236.7	172.9	154.9	144.3	137.6	135.0	133.7
17.5°	1034.7	828.5	545.9	309.2	181.5	152.3	137.6	127.7	122.4	118.4	117.0
20°	1117.1	867.1	512.7	236.7	155.6	136.3	122.4	112.4	107.1	103.1	103.1
22.5°	1200.9	903.0	458.8	182.2	137.6	121.0	107.7	98.4	93.1	89.1	89.1
25°	1278.7	926.9	389.7	150.3	124.3	107.7	95.8	86.4	80.5	77.8	76.5
27.5°	1351.2	942.2	313.2	132.3	111.7	96.4	83.8	75.1	70.5	68.5	67.2
30°	1426.3	946.2	239.4	120.4	101.1	85.1	73.1	66.5	62.5	59.8	59.8
32.5°	1499.5	941.6	182.9	110.4	91.8	75.1	65.2	59.2	55.9	53.9	53.2
35°	1573.9	920.3	148.3	101.7	82.5	65.8	57.9	53.2	51.2	48.5	48.5
37.5°	1655.1	891.7	129.0	93.1	73.1	59.2	51.9	48.5	45.9	43.9	43.2
40°	1756.1	858.4	118.4	85.8	64.5	53.2	46.5	43.2	41.2	39.2	38.6
42.5°	1875.8	825.9	113.0	77.8	57.9	47.2	41.9	37.9	35.9	33.2	32.6
45°	2045.4	818.6	107.1	69.2	51.9	42.6	36.6	32.6	29.9	27.9	27.3
47.5°	2318.0	839.2	97.1	59.8	45.9	37.2	31.3	27.9	24.6	22.6	21.3
50°	2588.6	833.8	87.1	51.9	40.6	31.9	26.6	23.3	19.9	18.0	17.3
52.5°	2736.3	808.6	77.8	45.9	35.2	27.3	22.6	18.6	16.6	14.6	14.0
55°	2869.9	798.6	68.5	39.9	29.9	23.9	18.6	15.3	14.0	12.0	11.3
57.5°	3131.9	821.9	60.5	34.6	25.9	20.6	16.0	12.6	11.3	9.3	8.6
60°	3405.9	824.5	51.9	29.9	22.6	17.3	12.6	10.0	8.6	6.6	6.0
62.5°	3548.8	757.4	42.6	25.3	18.6	14.6	10.6	8.0	6.6	4.0	4.0
65°	*3429.1*	*612.4*	*35.9*	*20.6*	*14.6*	*11.3*	*8.0*	*6.0*	*4.0*	*2.0*	*0.7*
67.5°	3034.8	435.5	29.9	16.6	10.6	8.0	6.0	4.0	0.7	0.0	0.0
70°	2222.3	248.7	23.3	12.0	8.0	5.3	4.0	2.0	0.0	0.0	0.0
72.5°	1365.8	133.0	17.3	8.0	6.0	4.0	3.3	1.3	0.0	0.0	0.0
75°	518.0	63.8	10.6	5.3	4.7	3.3	2.0	0.7	0.0	0.0	0.0
77.5°	140.3	31.3	6.0	4.0	3.3	2.0	1.3	0.0	0.0	0.0	0.0
80°	36.6	14.6	4.0	2.7	2.0	1.3	0.0	0.0	0.0	0.0	0.0
82.5°	12.6	6.6	2.0	2.0	1.3	0.7	0.0	0.0	0.0	0.0	0.0
85°	5.3	2.7	1.3	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.0	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

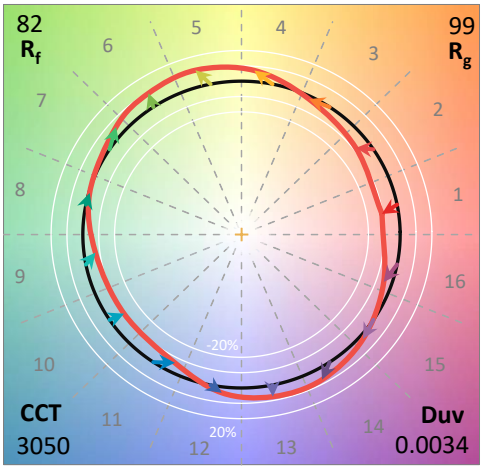
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2408-195-9
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/07/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**GALN-SB1A-830-U-5WQ**
Description:	GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K):	3050	CRI (Ra):	81.0		
CIE u':	0.2476	R1:	79.6	R9:	7.1
CIE v':	0.5251	R2:	85.6	R10:	67.0
Duv:	0.0034	R3:	92.0	R11:	82.7
CIE x:	0.4383	R4:	82.6	R12:	63.2
CIE y:	0.4131	R5:	78.9	R13:	80.3
CIE z:	0.1487	R6:	81.7	R14:	95.0
Peak Wavelength (nm):	603	R7:	85.2	R15:	71.7
Dominant Wavelength (nm):	581	R8:	62.0		
Purity:	55.55201				

Rf:	81.5
Rg:	99.2



Test Conditions

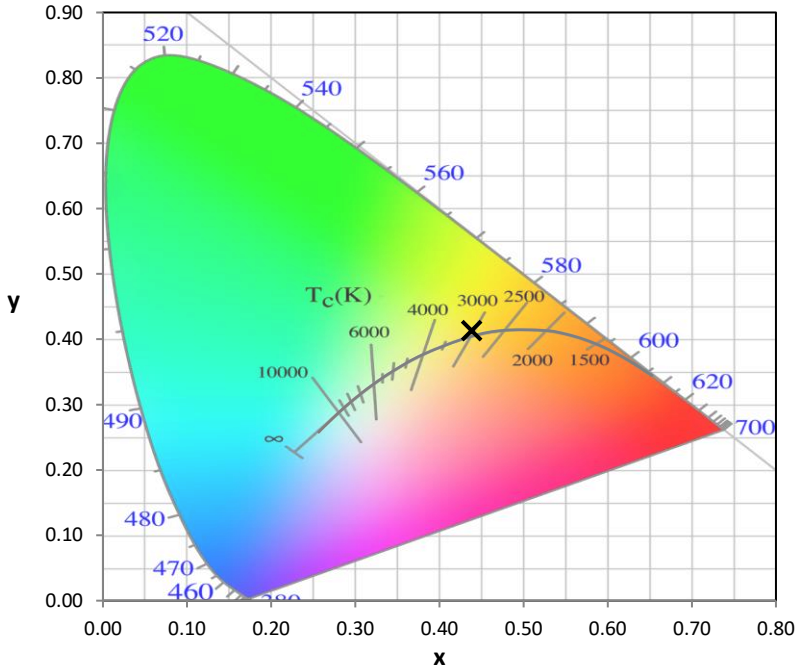
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

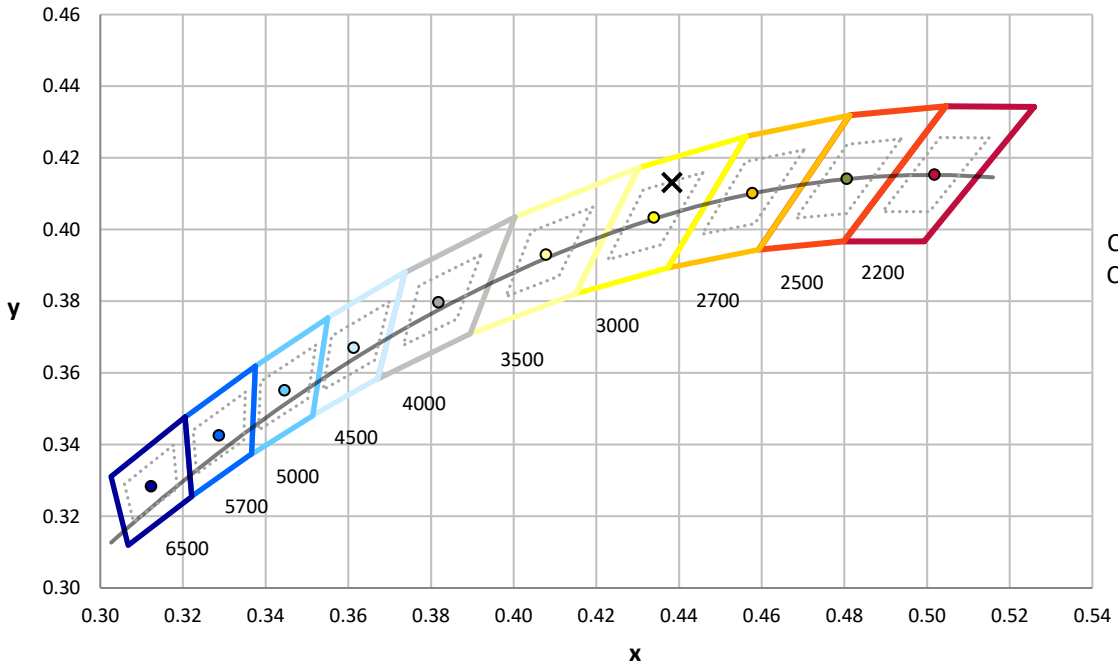
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

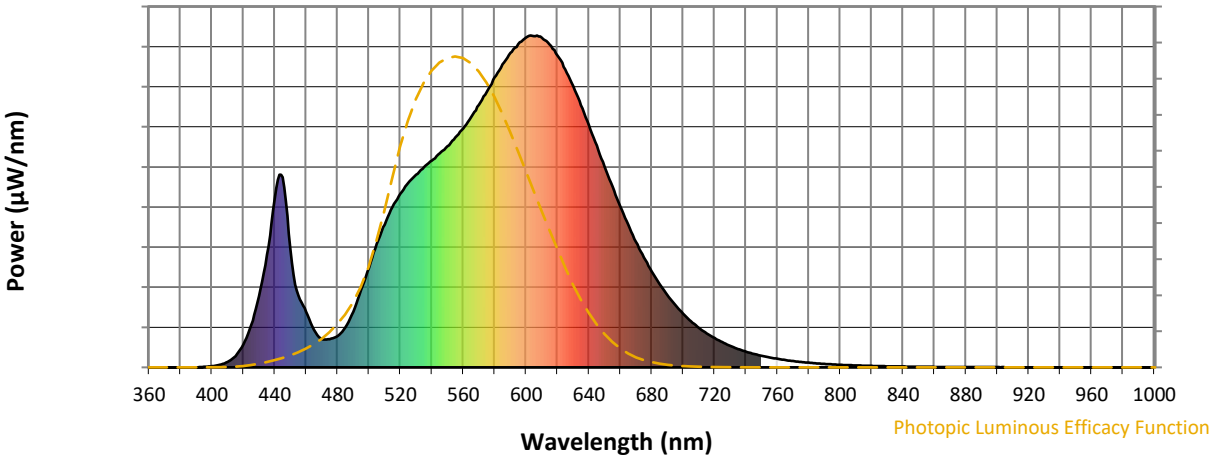


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

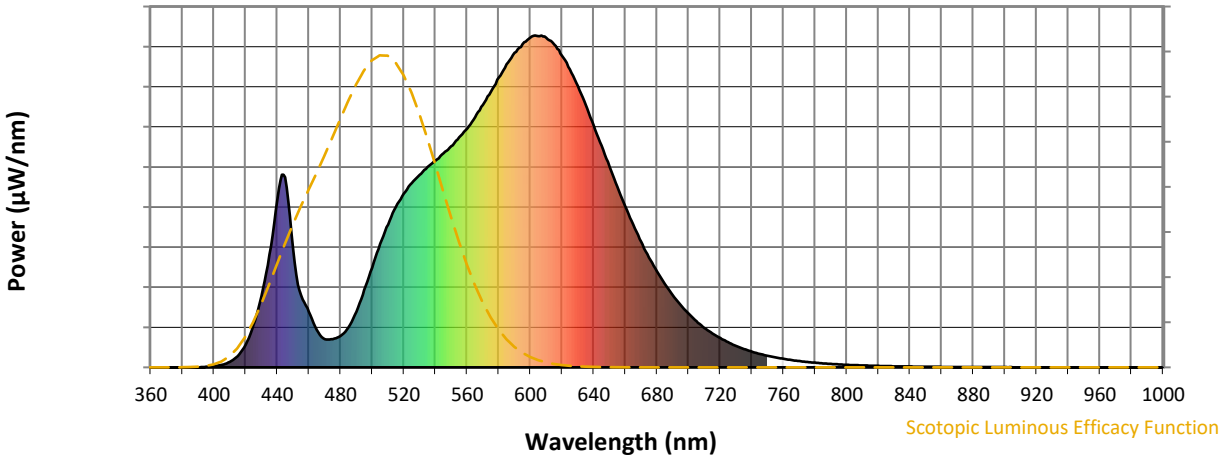


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength

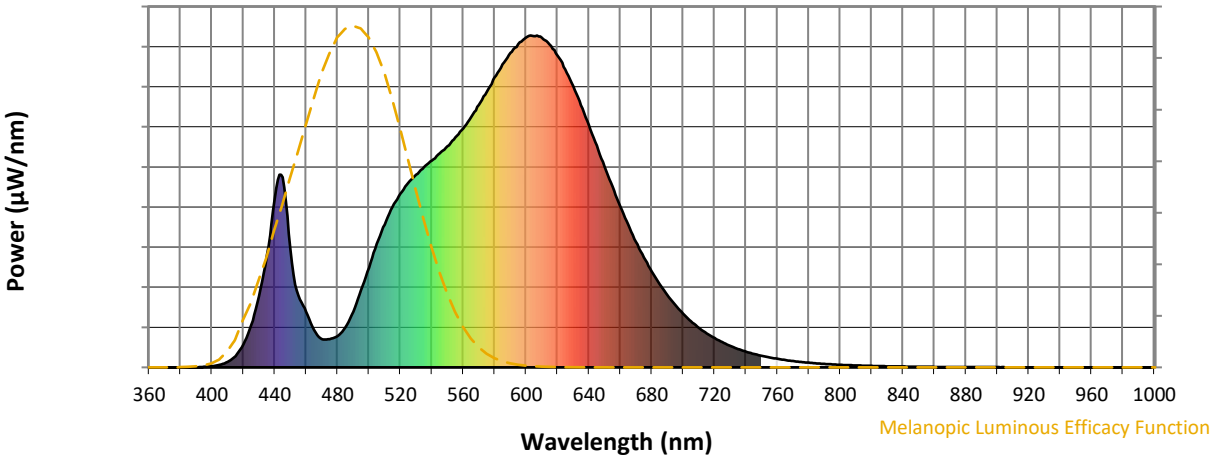


Scotopic Lumens: NR **S/P: 1.27**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

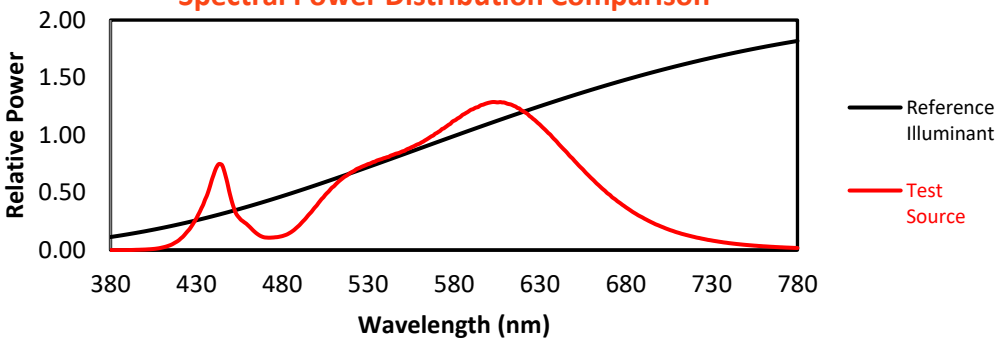
REPORT NUMBER: SP1-2408-195-9

TM-30-18

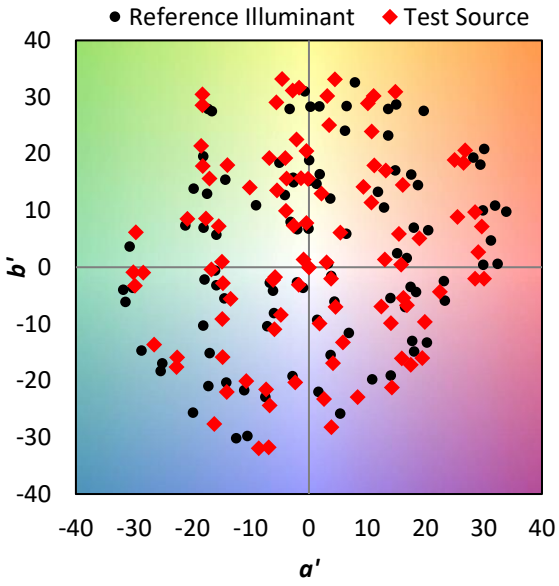
Summary

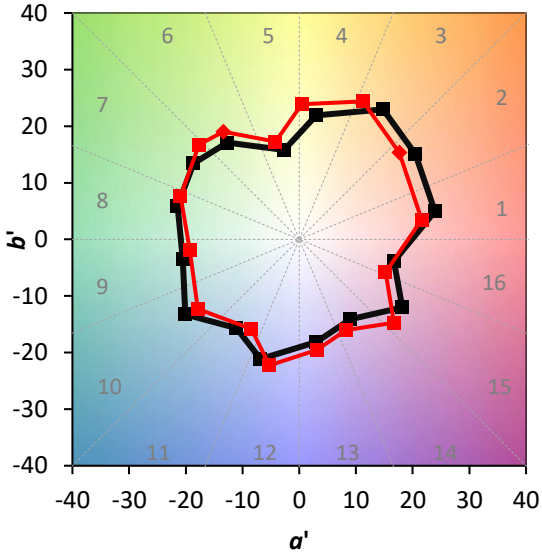
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

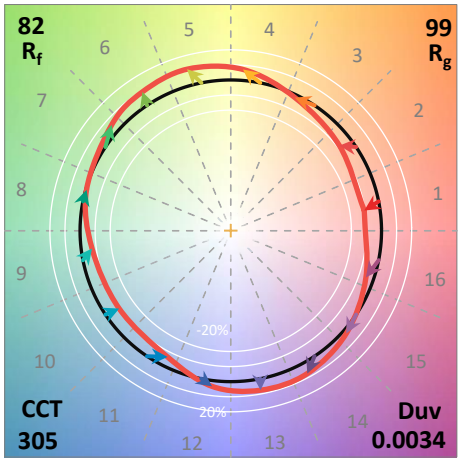
Spectral Power Distribution Comparison

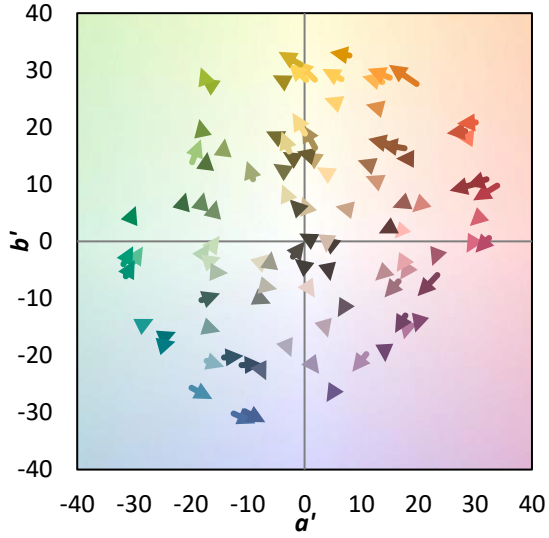


Color Vector Graphics







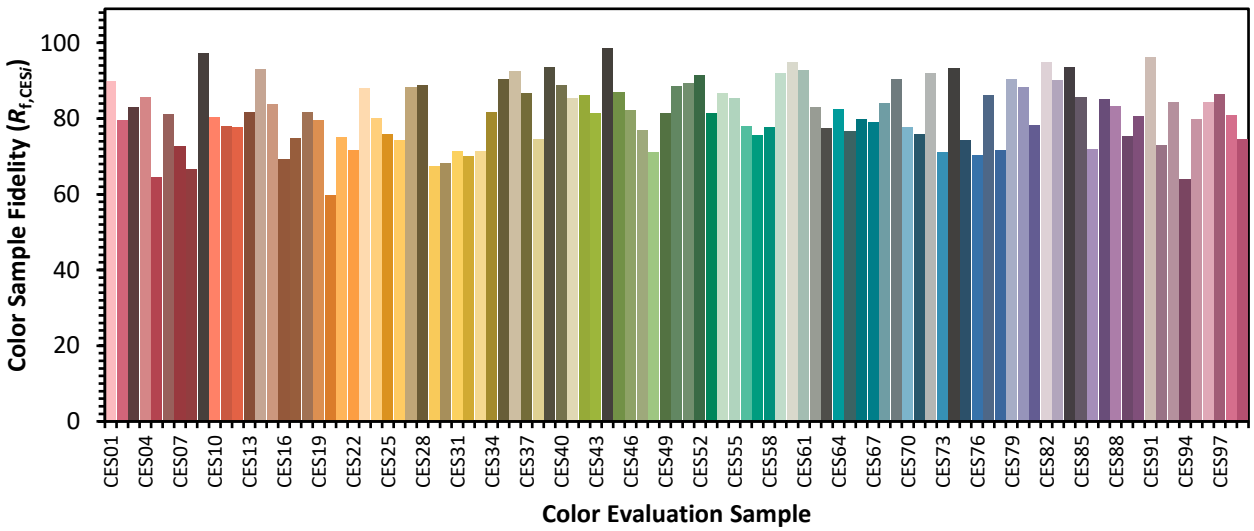


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Individual Sample Fidelity Index ($R_{f,i}$)

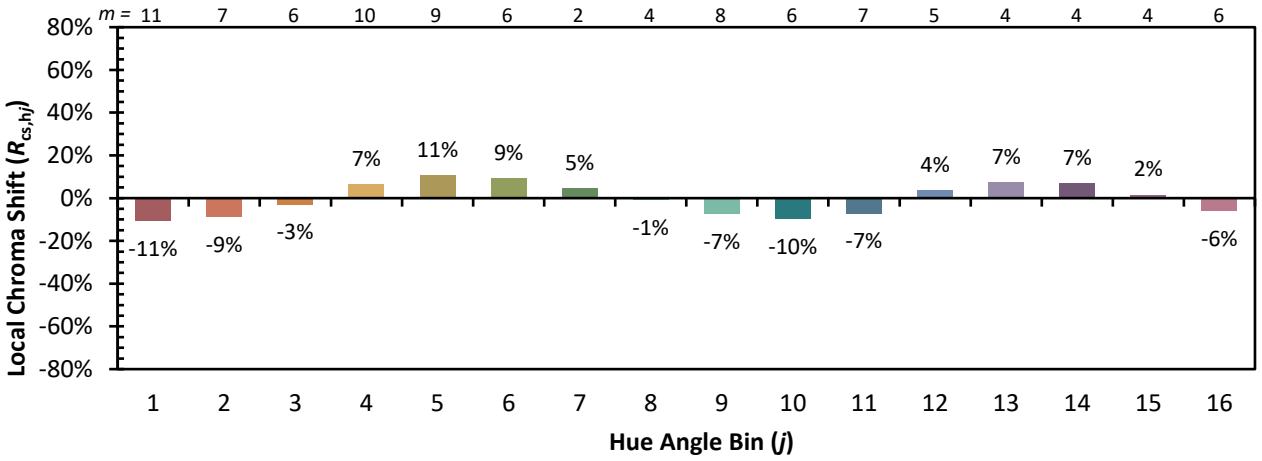
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	

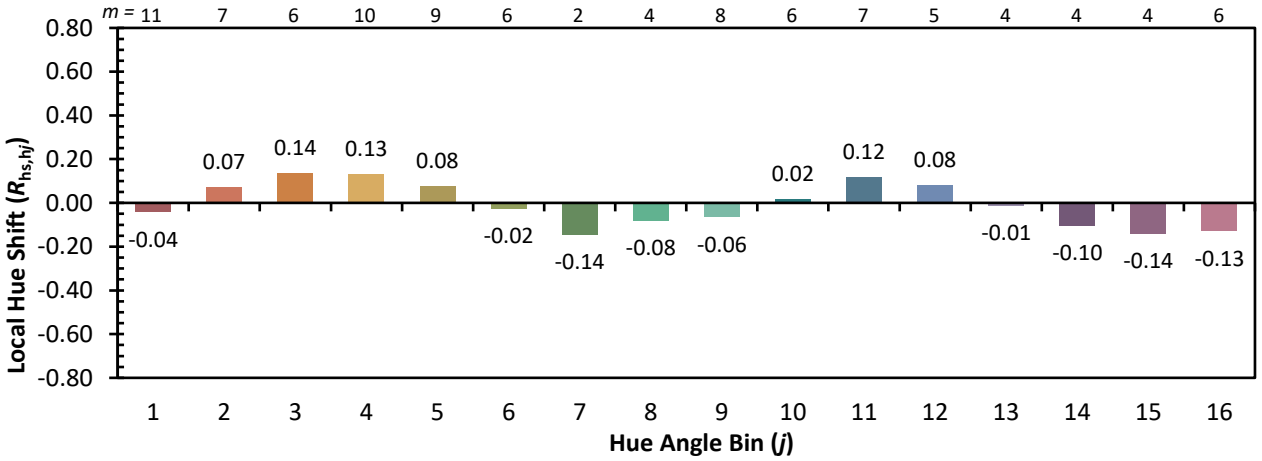


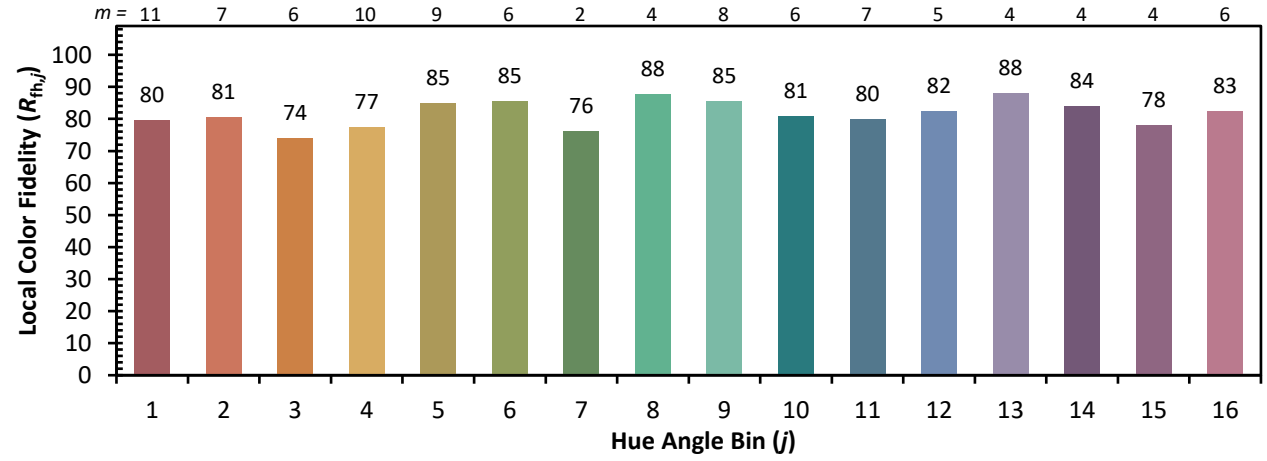
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



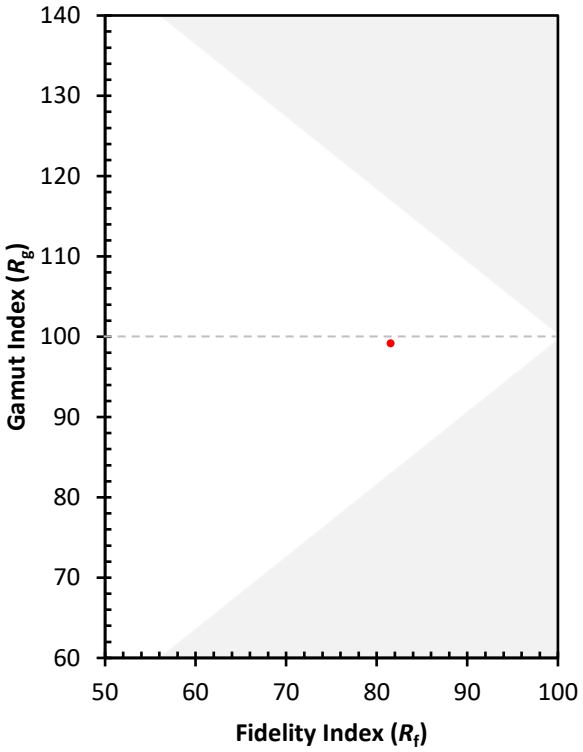


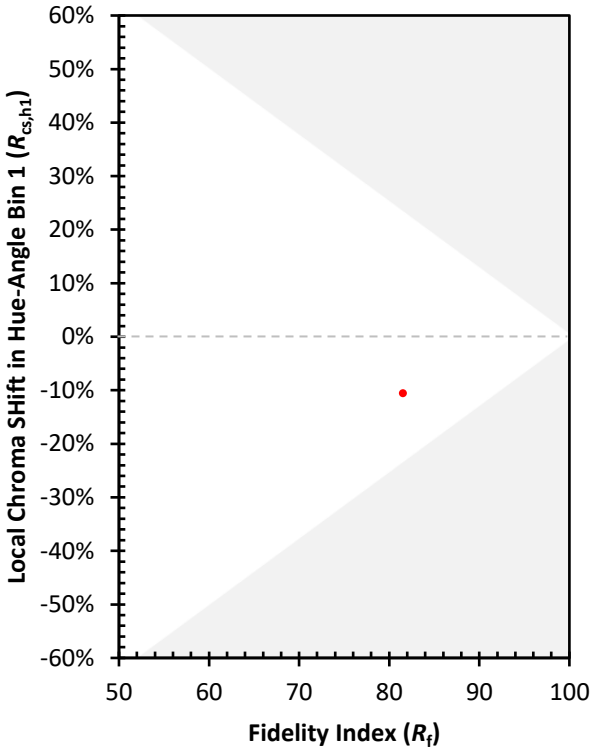


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)